

REMARKS

This is intended as a full and complete response to the Final Office Action dated October 9, 2008.

Claims Rejections Under 35 U.S.C. § 112

In view of the amendments to independent claims 1 and 28, withdrawal of the §112 ground of rejection is requested. Independent claim 30 was not amended as the objectionable phrase was not found in that claim.

Claim Rejections Under 35 U.S.C. §103

Claims 1-12, 18, 19, 22-24, 26, 28, and 30- 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bodnar (US 5,143,945) in view of Scherbel (US 5,688,835) and in further view of Fishback (US 5,523,333). In view of the amendments herein and remarks below, reconsideration of the ground rejection is requested.

Amended claim 1 is a process claim that calls for a "blowing agent selected from the group consisting of alkanes, alkenes, and cycloalkanes, each having from 4 to 8 carbon atoms, a urethane catalyst, and a metal salt trimerisation catalyst characterized in that the process is carried out in the presence of a carboxylic acid, wherein the urethane catalyst is used in an amount ranging from 0.1 to 3.5 % by weight based on the isocyanate-reactive component and the metal salt trimerisation catalyst is used in an amount ranging from 0.4 to 4.5 % by weight based on the isocyanate-reactive component." It is respectfully submitted that the teachings of Bodnar, Scherbel, and Fishback do not teach, suggest, or motivate one skilled in the art to do what the Applicants have claimed.

Bodnar proclaims that the novelty of his invention resides in the blowing agent mixture that is used with urethane-isocyanurate forming ingredients. 3:38-42. His blowing agent includes a halocarbon blowing agent and an organic carboxylic acid. *Id.* Rigid foams blown with carboxylic acids or combinations of an acid and water do not have the same "superior physical properties" as those made with a halocarbon blowing agent. *See, e.g.*, 2:13-37. To avoid inferior physical properties, all of Bodnar's blowing agent mixtures require some amount of halocarbon. *Id.* Thus, Bodnar does not teach or suggest a blowing agent selected from the group consisting of alkanes, alkenes, and cycloalkanes each having from 4 to 8 carbon atoms.

It is respectfully submitted that Scherbel does not cure the deficiencies of Bodnar. In the Office action, the Examiner asserts that it would have been obvious for one of ordinary skill in the art to replace the halocarbons of Bodnar with the hydrocarbons of Scherbel (see column 1, lines 40-52 of Scherbel). While Scherbel does indicate that hydrocarbons, cyclopentane in particular, can be used as a blowing agent in rigid polyurethane foams, he does not, in the cited passage, mention the usability of hydrocarbons in polyurethane-polyisocyanurate foams. Furthermore, Scherbel teaches away from the mere replacement of a halocarbon with cyclopentane because cyclopentane is expensive, and he teaches away from replacement with an aliphatic pentane because the resultant foams have a higher thermal conductivity, and homogeneity and processing problems. 1:51-65. Thus, not only does Scherbel teach away from the Examiner's suggested modification of Bodnar, one skilled in the art would not even be sure he or she would succeed in obtaining a foam with suitable properties. Since Bodnar's novelty is in his blowing agent and because there is no reason for one of ordinary skill in the art to modify Bodnar as proposed in the Office action, it is submitted that Bodnar in view of Scherbel do not render the claims rejected obvious.

It is also respectfully submitted that Fishback does not cure the deficiencies of Bodnar and Scherbel. In the Office action, it is suggested that it would have been obvious for one having ordinary skill in the art to have employed the carboxylic acids of Fishback, including anthranilic acid as the carboxylic acids used in Bodnar. This suggestion is traversed.

Bodnar indicates that the carboxylic acid portion of his blowing agent excludes carboxylic acids where the carboxyl group is attached to a carbon atom that forms a part of an aromatic ring. 3:60-68. Anthranilic acid, however, is such a carboxylic acid. Thus, Bodnar teaches away from the modification proposed by the Examiner.

In view of the amendment to claim 1 and the forgoing argument, it is respectfully submitted that claim 1 and claims dependent thereon are not obvious over Bodnar in view of Scherbel and in further view of Fishback. Withdrawal of each rejection is requested.

Under a similar analysis, withdrawal of the rejection of independent claims 28 and 30 and their respective dependent claims is also requested.

Conclusion

In conclusion, the references cited by the Examiner do not teach or suggest embodiments of the invention as claimed.

Having addressed all issues set out in the Final Office Action, Applicant respectfully submits that the claims are in condition for allowance and respectfully requests that the claims be allowed.

Respectfully submitted,

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